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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,548	10/19/2000	John Popovich	PERMLT.019A	7749

20995 7590 04/24/2002

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620 Newport Center Drive  
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Newport Beach, CA 92660

EXAMINER

TSO, LAURA K

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 04/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.



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This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on Pre Amdt A (2/20/01) & Pre Amdt B (4/23/01)

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-43 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☒ Claim(s) 1-37 is/are allowed.

☒ Claim(s) 38-43 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of Reference Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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## DETAILED ACTION

### *Specification*

1. The disclosure should be carefully reviewed to ensure that any and all grammatical, idiomatic, and spelling or other minor errors are corrected.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Machida (5,746,497).

Machida discloses the claimed limitations including a plurality of LEDs [6] series connected on a circuit board comprising a main body and a contact area wherein the contacts are arranged on the first side of the main body, are inherently in thermal communication with the circuit board and wherein the contacts are electrically insulated relative to one another. Inherently the main body is non-conductive and insulated from the contacts.

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*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Machida.

Machida does not disclose that the main body is metallic or its thermal conductivity is greater than about 100 W/mK. It is well known in the art to form a circuit board of metallic material or of a material with desirable thermal conductivity. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the circuit board of Machida of metallic material or any other type of material which is available and would produce desirable structural, thermal and electrical properties. It has been held to be within the general

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skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

*Allowable Subject Matter*

6. Claims 1-37 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to show or suggest a LED module including a plurality of LEDs and a circuit board comprising a thin dielectric sheet, electrical contacts as claimed, and a heat conductive plate as claimed.

*Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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9. Any inquiry concerning this communication should be directed to the Examiner at the below-listed number on **Mondays and Wednesdays until 2:00pm and Fridays with various hours. Personal interviews may be accommodated anytime on a limited basis.**

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Sandra O'Shea, can be reached on 703 305 4939. The fax numbers for this Technology Center 2800 are 703 305 3432 and 703 308 7722.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703 308 0956, Monday-Friday, 830am to 5:00pm, EST.

By:



LAURA TSO

Primary Examiner

703 305 1672